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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/757,354	01/08/2001	David Clear	40031/JEJ/X2	8880

35114 7590 05/20/2004

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EXAMINER	
NG, CHRISTINE Y	
ART UNIT	**PAPER NUMBER**
2663	6

DATE MAILED: 05/20/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	09/757,354	CLEAR ET AL.	
	Examiner	Art Unit	
	Christine Ng	2663	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *08 January 2001*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-22* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-9, 11-17 and 19-22* is/are rejected.

7)☒ Claim(s) *10 and 18* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *08 January 2001* is/are: a)☒ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

DETAILED ACTION

Claim Rejections - 35 USC § 102

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-7, 9, 11-15, 17 and 19-22 are rejected under 35 U.S.C. 102(b) as being anticipated by U.S. Patent No. 4,862,451 to Closs et al.

Referring to claims 1 and 3, Closs et al disclose in Figure 12 an edit module (Element 45) for modifying an inbound packet to generate an outbound packet. The method comprises:

An edit program construction engine (Element 45). The packet editor 45 modifies an incoming packet from packet assembler 43 before transmission to a FIFO 47. Refer to Column 5, lines 54-67.

Wherein the edit program construction engine (Element 45) creates an edit program (Column 11, lines 44-61) for a packet in response to a disposition decision (destination address) for the packet, and wherein the edit program (Column 11, lines 44-61) is applied to modify the packet. The packet editor 45 modifies each incoming packet by adding a two-byte local routing address and a two-bit tag to each packet. The two-byte local routing address is derived from the packet's destination address. Refer to Column 5, line 67 to Column 6, line 10 and Column 11, lines 5-61.

Referring to claims 2 and 4, Closs et al disclose in Figure 12 that the edit program (Column 11, lines 44-61) includes a plurality of instructions (Column 11, lines 44-61), and wherein one or more of the instructions determine one or more data bits to be included in the modified packet. The edit program modifies each incoming packet by adding a two-byte local routing address and a two-bit tag to each packet, according to the procedure in Column 11, lines 44-61.

Referring to claims 5 and 13, Closs et al disclose in Figure 12 a packet switching controller for processing an inbound packet. The packet switching controller comprises:

A first engine (Element 45) for constructing an edit program (Column 11, lines 44-61) for the inbound packet in response to a disposition decision (destination address) for the inbound packet. The packet editor 45 modifies an incoming packet by adding a two-byte local routing address and a two-bit tag to each packet. The two-byte local routing address is derived from the packet's destination address. Refer to Column 5, line 67 to Column 6, line 10 and Column 11, lines 5-61.

A memory (Element 43 and Elements inside packet editor 45) for storing the edit program (Column 11, lines 44-61). Refer to Column 11, lines 5-61.

A second engine (Element 43 and Elements inside packet editor 45) for executing the edit program (Column 11, lines 44-61) to modify the inbound packet to generate an outbound packet. The elements inside packet editor 45, including an address conversion circuitry 105 and two bit registers 107A-107C, are used to modify each incoming packet. Refer to Column 11, lines 5-61.

Referring to claims 6 and 14, Closs et al disclose in Figure 12 that the edit program (Column 11, lines 44-61) includes a plurality of instructions (Column 11, lines 44-61), and one or more instructions determine a plurality of data bits to be included in the outbound packet. The edit program modifies each incoming packet by adding a two-byte local routing address and a two-bit tag to each packet, according to the procedure in Column 11, lines 44-61.

Referring to claims 7 and 15, Closs et al disclose in Figure 12 that the edit program (Column 11, lines 44-61) includes a plurality of instructions (Column 11, lines 44-61), and one or more instructions are for performing at least one operation selected from the group consisting of RECORD, PLAYBACK, COPY, DELETE, INSERT and OVERWRITE operations. The edit program modifies each incoming packet to INSERT a two-byte local routing address and a two-bit tag to each packet. Refer to Column 5, line 67 to Column 6, line 10.

Referring to claims 9 and 17, Closs et al disclose in Figure 12 that the second engine (Element 43 and Elements inside packet editor 45) includes a packet input buffer (Element 43) for receiving and for temporarily storing the inbound packet. "Data packets arriving are stored sequentially in the packet assembler 43" before transferred to the packet editor 45. Refer to Column 11, lines 9-12.

Referring to claims 11 and 19, Closs et al disclose in Figure 12 that the second engine (Element 43 and Elements inside packet editor 45) includes a playback buffer (Element 43) for storing data from the inbound packet and for playing back at least a portion of the stored data. Data packets are stored in the packet assembler 43.

"Whenever a complete packet is available for switching, the packet assembler 43 sends a ready signal and then the assembled packet to the packet editor 45" (Column 5, lines 64-66).

Referring to claims 12 and 20, Closs et al disclose in Figure 12 that the second engine (Element 43 and Elements inside packet editor 45) includes a packet output buffer (address conversion circuitry 105 and two bit registers 107A-107C) which is used to modify one or more bits of the inbound packet to generate the outbound packet, and to transmit the outbound packet. The edit program modifies each incoming packet by adding a two-byte local routing address using address conversion circuitry 105 and a two-bit tag using registers 107A-107C to each packet. Refer to Column 11, lines 18-30.

Referring to claims 21 and 22, Closs et al disclose in Figure 1 a switch comprising a switching backplane (Elements 23 and 27) and a plurality of packet switching controllers (Elements 17). Refer to Column 3, lines 15-43 and Column 4, lines 18-25. As shown in Figure 12, the packet switching controller comprise:

A buffer for receiving and storing an inbound packet (Element 43). Data packets arriving are stored in the packet assembler. Refer to Column 5, lines 60-67.

A first engine (Element 45) for constructing an edit program (Column 11, lines 44-61) real-time using a disposition decision (destination address) for the inbound packet. The packet editor 45 modifies an incoming packet by adding a two-byte local routing address and a two-bit tag to each packet. The two-byte local routing address is derived from the packet's destination address. Refer to Column 5, line 67 to Column 6, line 10 and Column 11, lines 5-61.

A second engine (Elements inside packet editor 45) for executing the edit program (Column 11, lines 44-61) to modify the inbound packet into an outbound packet. Refer to Column 11, lines 5-61.

Wherein the packet switching controller (Figure 1, Element 17) modifies the inbound packet transmits the outbound packet over the switching backplane (Figure 1, Elements 23 and 27) to one or more of other packet switching controllers (Figure 1, Element 17). The packets are modified at input port units (Figure 1, Elements 17A) and sent out of output port units (Figure 1, Elements 17B). Refer to Column 3, lines 15-43; Column 4, lines 18-25 and Column 5, line 54 to Column 6, line 10.

Claim Rejections - 35 USC § 103

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

4. Claims 8 and 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent No. 4,862,451 to Closs et al in view of U.S Patent No. 5,563,878 to Blakeley et al.

Closs et al do not disclose that the edit program includes a plurality of instructions that are executed serially.

Blakeley et al disclose in Figures 4 and 5 that an edit program includes a plurality of instructions that are executed serially. The flow chart of Figures 4 and 5 show the instructions taken by an address editor to change the header of a packet to reroute

packets. If a routing path for a packet cannot be found, the instructions allow the editor to "pop a NAPS element off of the destination address stack when it is no longer needed", "provide new routing information and yet preserving the existing routing information for processing at another routing point along the message path", and "replace one or more NAPS elements fields to correct or amend the required information" (Column 8, lines 40-49). Refer to Column 8, line 50 to Column 9, line 42. Therefore, it would have been obvious to one of ordinary skill in the art at the time the invention was made to include that the plurality of instructions in the edit program are executed serially; the motivation being so that a packet can follow a set of sequential steps to first determine whether or not a routing path can be found and if not, to edit the header to reroute the packet.

Allowable Subject Matter

5. Claims 10 and 18 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

6. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christine Ng whose telephone number is (703) 305-8395. The examiner can normally be reached on M-F; 8:00 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Nguyen Chau can be reached on (703) 308-5340. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

C. Ng
May 14, 2004

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